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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/658,658

09/08/2000

Michael James McLaughlin JR.

50277-0357

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04/19/2006

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EXAMINER

DINH, DUNG C

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/658,658

Applicant(s)

MCLAUGHLIN, MICHAEL JAMES

Examiner

Dung Dinh

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/10/06</u> . | 6) <input type="checkbox"/> Other: _____  |

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#### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/30/2006 has been entered.

#### ***Response to Arguments***

Applicant's arguments filed 1/30/2006 have been fully considered but they are moot in view of new ground of rejection below.

Claims 1-30 are pending for examination.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been*

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*obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al. "Transaction Processing: Concepts and Techniques" (prior art submitted by Applicant 1/28/05) and further in view of Sharma et al. "Scalable Timers for Soft State Protocols", Bowen et al. US patent 6,209,038 and Xia US patent 6,154,849.

As per claims 1, Gray teaches a method of managing a distributed transaction (p.567 "Distributed Transactions and Two-Phase Commit"), comprising:

setting a timeout period after a coordinator determines to initiate commitment of the distributed transaction (see p.568 lines 11-16, and p.570 last paragraph "the prepare phase has an associated timeout"),

after the coordinator initiates commitment of the distributed transaction, then determining whether to terminate the distributed transaction based on the time period (p.571 1st paragraph "if anyone fails to respond within a time limit, then the commit coordinator issues a transaction abort").

Gray sets a timeout value but does not teach that the value is adjusted based on gathered network latency information.

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In similar art of distributed processing, Sharma teaches an improved method over fixed timeout periods for efficient communication sessions over the Internet by adjusting timeout values based on gathered information about network latency comprising:

gathering latency information to generate one or more time period values [p.222 top of col.2 "Scalable timers replace the fixed time settings ... with timers that adapt to the volume ... and available bandwidth"];

determining whether to terminate a session based on one or more of the time period values [see p.222 col.1 and p.223 col.1 2nd paragraph, p.224 col.2 "Timing out network state"].

Sharma further discloses that the variable timeout is simple to implement and does not require modification to existing protocol (p.229 col.1 section 8). Hence, it would have been obvious for one of ordinary skill in the art to combine Sharma with Shay to modified the fixed timeout values in Gray with dynamically adjusted timeout values based on various conditions including network latency because it would have improved the performance of the system and prevent premature transaction failures of distributed transaction over wide area network such as the Internet.

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As per claim 2, Gray teaches participants terminate the transaction based on the time period (p.571 section 10.4.2.3 "if the prepare request waits longer than a timeout period, then the participant can abort the transaction").

As per claim 3, Gray teaches the transaction is managed by the coordinator in cooperation with the participant by communicating messages over the network (p.570 section 10.4.2.2).

As per claims 4-5, Sharma teaches communication over the Internet. It well known in the art to use stateless protocol such as HTTP or HTTPS for transaction over the Internet. (See Bowen col.1 lines 1-22). It would have been obvious for one of ordinary skill in the art to use stateless protocol such as HTTP or HTTPS because it would have facilitated distributed transaction over the Internet for e-commerce purposes.

As per claims 6 and 7, Sharma does not disclose setting the time period value based on time period when a message is transmitted and an acknowledgement for the message is received. However, it would have been obvious for one of ordinary skill in the art in to set the time values based at least on the round trip time so as to ensure an adequate minimum timeout value.

As per claim 8, it would have been obvious for one of ordinary skill in the art to generate at least two transmit times

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because it would have enable redundancy and statistically valid measurement of the transit time.

As per claim 9, Sharma does not disclose pingging a server. It is well known in the network communication art to measure transmit time by pingging the other node. Hence, it would have been obvious for one of ordinary skill in the art to measure transit time to a server by pingging that server.

As per claim 10, Sharma does not specifically teaches determining transaction threshold. In similar field of setting timeout value, Xia teaches determining a transaction execution threshold (server load) to adjust the timeout value. It would have been obvious for one of ordinary skill in the art to take into account the time needed for a participant to execute operations for a transaction in computing the timeout values so to ensure adequate time for the server to perform the transaction.

As per claim 11, the recited limitation is inherent in the method as modified. It would have been obvious for one of ordinary skill in the art to check for termination criteria of a preceding transaction prior to permitting modification by a second transaction so as to reduce data corruption.

As per claims 12-14 and 19+29-30, they are rejected under similar rationale as for claims 1-5 above. Xia and Sharma do not specifically teach adjusting the time period based on the

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transaction execution period. However, given the teaching of Xia and Sharma as a whole, one of ordinary skill in the art<sup>2</sup> would have been motivated to take into account the execution time of transaction operation in calculating the time period values in order to assure a minimum time adequate for a participant to receive, to execute, and to return the result/acknowledgement.

As per claims 15 and 20, they are rejected under similar rationale as for claims 1-5 above. It is apparent from Sharma teaching that that changes in latency (changes traffic or bandwidth) would cause adjustment to the timeout values.

As per claims 16-18, 21-22, they are rejected under similar rationale as for claims 1-5 above.

As per claims 23 and 24, they are rejected under similar rationale as for claims 6 and 7 above.

As per claims 25-26, they are rejected under similar rationale as for claims 8-9 above.

As per claims 27-28, they are rejected under similar rationale as for claims 10-11 above.

### ***Conclusion***



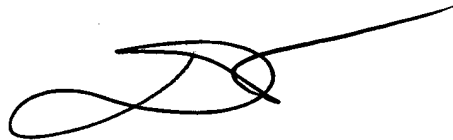
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (571) 272-3943. The examiner can normally be reached on Monday-Friday from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (571) 272-3949.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Dung Dinh  
Primary Examiner  
April 13, 2006